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NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,  
AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

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NEWS LOGIN Welcome Banner and News Items  
NEWS IPC8 For general information regarding STN implementation of IPC 8

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FILE 'HOME' ENTERED AT 09:52:16 ON 09 SEP 2008

FILE 'REGISTRY' ENTERED AT 09:52:30 ON 09 SEP 2008  
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STRUCTURE FILE UPDATES: 8 SEP 2008 HIGHEST RN 1047724-15-1  
DICTIONARY FILE UPDATES: 8 SEP 2008 HIGHEST RN 1047724-15-1

New CAS Information Use Policies, enter HELP USAGE TERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

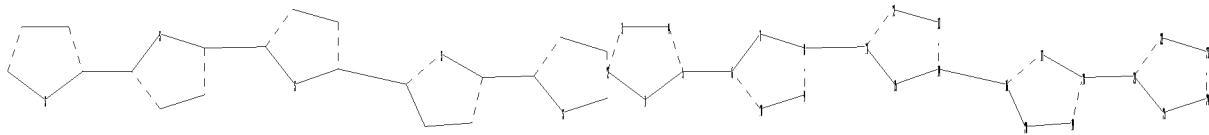
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stnqgen/stndoc/properties.html>

=>  
Uploading C:\Program Files\Stnexp\Queries\10566166.str

09/09/2008, 10566166II.trn



ring nodes :  
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23  
24 25

chain bonds :

5-6 8-11 14-16 18-21

ring bonds :

1-2 1-5 2-3 3-4 4-5 6-7 6-10 7-8 8-9 9-10 11-12 11-15 12-13 13-14  
14-15 16-17 16-20 17-18 18-19 19-20 21-22 21-25 22-23 23-24 24-25

exact/norm bonds :

1-2 1-5 2-3 3-4 4-5 6-7 6-10 7-8 8-9 9-10 11-12 11-15 12-13 13-14  
14-15 16-17 16-20 17-18 18-19 19-20 21-22 21-25 22-23 23-24 24-25

exact bonds :

5-6 8-11 14-16 18-21

Match level :

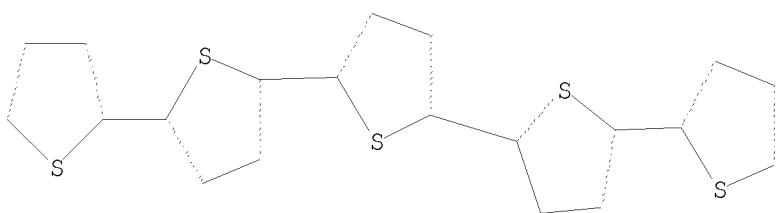
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom  
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom  
20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:Atom

L1 STRUCTURE UPLOADED

=> d 11

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 11

SAMPLE SEARCH INITIATED 09:52:51 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 236 TO ITERATE

100.0% PROCESSED 236 ITERATIONS  
SEARCH TIME: 00.00.01

0 ANSWERS

09/09/2008, 10566166II.trn

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 3799 TO 5641  
PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s 11 full  
FULL SEARCH INITIATED 09:52:55 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 5533 TO ITERATE

100.0% PROCESSED 5533 ITERATIONS 11 ANSWERS  
SEARCH TIME: 00.00.01

L3 11 SEA SSS FUL L1

=> file caplus  
COST IN U.S. DOLLARS SINCE FILE TOTAL  
FULL ESTIMATED COST ENTRY SESSION  
178.36 178.57

FILE 'CAPLUS' ENTERED AT 09:52:58 ON 09 SEP 2008  
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FILE COVERS 1907 - 9 Sep 2008 VOL 149 ISS 11  
FILE LAST UPDATED: 8 Sep 2008 (20080908/ED)

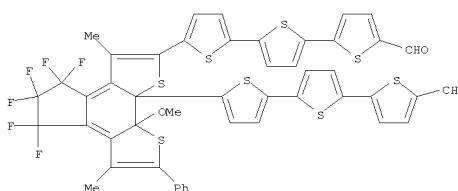
Caplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

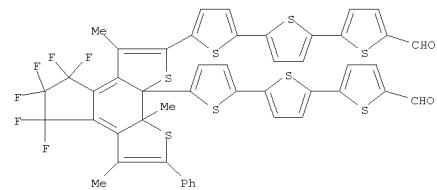
<http://www.cas.org/legal/infopolicy.html>

=> s 13  
L4 5 L3

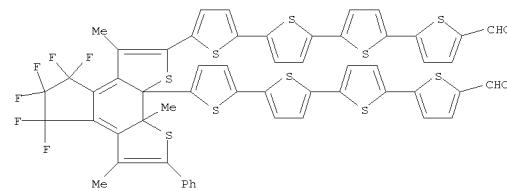
=> d ed abs ibib hitstr tot

L4 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN  
 ED Entered STN: 12 Jan 2006  
 AB New oligothiophenes having a photochromic switching unit were synthesized.  
 Upon irradiation with UV and visible light the oligomers underwent photochromic reactions in solution. The chain length dependence on the photoreactivity was examined to reveal that the reactivity decreased as the chain length gets longer. These mols. can be used as new photoswitching units.  
 ACCESSION NUMBER: 200628176 CAPLUS  
 DOCUMENT NUMBER: 144:212599  
 TITLE: Photochromic oligothiophenes  
 AUTHOR(S): Tanifugi, Naoki; Irie, Masahiro; Matsuda, Kenji  
 CORPORATE SOURCE: Precursory Research for Embryonic Science and Technology (PRESTO), Japan Science and Technology Agency (JST), Kyushu University, 744 Motooka, Fukuoka, 819-0395, Japan  
 SOURCE: Chemistry Letters (2005), 34(12), 1580-1581  
 PUBLISHER: CMLTAG; ISSN: 0366-7022  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 144:212599  
 IT 875936-41-7P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and photocyclization of photochromic oligothiophenes)  
 RN 875936-41-7 CAPLUS  
 CN [2,2':5',2''-Terthiophene]-5-carboxaldehyde, 5',5'',5'''-(4,4,5,5,6,6-hexafluoro-4,5,6,9b-tetrahydro-9b-methoxy-3,7-dimethyl-2-phenyl-9aH-indeno[5,4-b:6,7-b']dithiophene-8,9a-diyli)bis-(9CI) (CA INDEX NAME)  
  
 IT 875936-40-6P 875936-42-8P 875936-43-9P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and photocyclization of photochromic oligothiophenes)  
 RN 875936-40-6 CAPLUS  
 CN [2,2':5',2''-Terthiophene]-5-carboxaldehyde, 5',5'',5'''-(4,4,5,5,6,6-

L4 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)  
 hexafluoro-4,5,6,9b-tetrahydro-3,7,9b-trimethyl-2-phenyl-9aH-indeno[5,4-b:6,7-b']dithiophene-8,9a-diyli)bis-(9CI) (CA INDEX NAME)



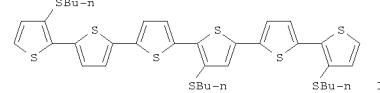
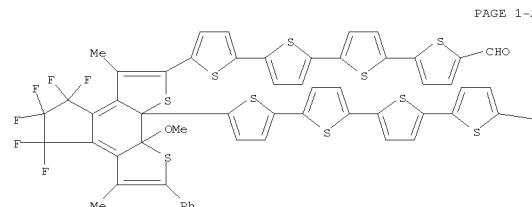
RN 875936-42-8 CAPLUS  
 CN [2,2':5',2''-5'''-Quaterthiophene]-5-carboxaldehyde,  
 5',5'',5'''-(4,4,5,5,6,6-hexafluoro-4,5,6,9b-tetrahydro-9b-methoxy-3,7-dimethyl-2-phenyl-9aH-indeno[5,4-b:6,7-b']dithiophene-8,9a-diyli)bis-(9CI) (CA INDEX NAME)



RN 875936-43-9 CAPLUS  
 CN [2,2':5',2''-5'''-Quaterthiophene]-5-carboxaldehyde,  
 5',5'',5'''-(4,4,5,5,6,6-hexafluoro-4,5,6,9b-tetrahydro-9b-methoxy-3,7-dimethyl-2-phenyl-9aH-indeno[5,4-b:6,7-b']dithiophene-8,9a-diyli)bis-(9CI) (CA INDEX NAME)

L4 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

L4 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN  
 ED Entered STN: 08 Dec 2003  
 GI



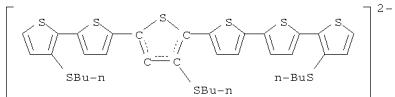
AB The 3',3'',3'''-tris(butylsulfanyl)-2,2':5',2''-5'''-2'''-5'''-5'''-2'''-5'''-2'''-sexithiophene 1 (I) was investigated through spectroscopic (NMR, EPR, UV/Vis-NIR), electrochem., spectroelectrochem. and theor. (DFT) studies. The charged species obtained upon its oxidation and reduction were characterized, showing that 1 can exist in at least five different oxidation states, i.e., a neutral species, a radical cation, a dication, a radical anion, and a dianion. The long term stability of the radical cation 1+ was evidenced by the 1H NMR study in the presence of small quantities of trifluoroacetic acid (TFA). This approach allowed a comparison of the relative broadening of proton signals of 1, induced by the electron exchange process with traces of radical cation 1+, and the hfc (hyperfine coupling) const. obtained from the EPR study and DFT calcns. In the radical cation, all of the heterocyclic sulfur atoms are not significantly involved in the delocalization of the unpaired electron, whereas the opposite holds for the radical anion. Time-dependent DFT calcns. reproduced well the wavelengths of the optical transitions observed in the spectroelectrochem. expts. for all the five oxidation states and support the formation of the dianion 1-.

ACCESSION NUMBER: 2003952887 CAPLUS  
 DOCUMENT NUMBER: 140:163411  
 TITLE: Radical ions from 3,3'',3'''-tris(butylsulfanyl)-2,2':5',2''-5'''-2'''-5'''-2'''-5'''-2'''-5'''-2'''-5'''-2'''-sexithiophene: An experimental and theoretical study of the p- and n-doped oligomer  
 AUTHOR(S): Alberti, Angelo; Ballarin, Barbara; Guerra, Maurizio; Macciantelli, Dante; Mucci, Adele; Parenti, Francesca; Schenetti, Luisa; Seiber, Renato; Zanardi, Chiara  
 CORPORATE SOURCE: Istituto per la Sintesi e la Fotoreattività ISOF-CNR, Bologna, 40129, Italy  
 SOURCE: ChemPhysChem (2003), 4(11), 1216-1225  
 CODEN: CPCHFT; ISSN: 1439-4235  
 PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 655228-15-2  
 RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation, nonpreparative)  
 (diamagnetic dianion, NIR; NMR, EPR, UV/Vis-NIR, electrochem., and DFT studies of radical ion, dication, and dianion charged states of an oligothiophene)

CHO

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)  
 RN 655228-15-2 CAPLUS  
 CN 2,2';5',2'';5',2'';5'''5''',2''''-Sexithiophene,  
 3,3''',3''''-tris(butylthio)-2'',3''''-dihydro-, ion(2-) (9CI) (CA INDEX NAME)



REFERENCE COUNT: 57 THERE ARE 57 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L4 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)  
 ED Entered STN: 19 Oct 1998  
 AB The method for preparing, e.g., polythiophene uses a precursor having tetrahydrothiophene or THF units having arylthio or alkylthio substituents. The precursor is soluble and can be thermally converted

into thiophene or furan units from solution. The precursor model compound 3,4-bis(phenylthio)-2,5-di-2-thienyltetrahydrofuran (I) was prepared by forming PhSCH<sub>2</sub>CO<sub>2</sub>H from PhSH and ClCH<sub>2</sub>CO<sub>2</sub>H, converting to the acid chloride, using this to acylate thiophene, self-coupling the product in the presence of CuCl<sub>2</sub> to form 2,3-bis(phenylthio)-1,4-di-2-thienyl-1,4-butanedione, reduction with LiAlH<sub>4</sub>, and cyclodehydration. Heating I to approx. 250° for 30 min yields 2,5-di-2-thienylfuran. Polymerization of 2,5-bis(5-bromo-2-thienyl)tetrahydro-3,4-bis(phenylthio)thiophene with bis(cyclooctadiene)nickel in 2,2'-bipyridyl gave a precursor polymer soluble

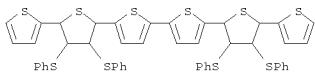
in CHCl<sub>3</sub> or THF, which could be applied by spin-coating and thermally decomposed to a semiconductive polymer in the manufacture of a MISFET (metal-insulator-semiconductor field-effect transistor).

ACCESSION NUMBER: 1998:658571 CAPLUS  
 DOCUMENT NUMBER: 129:276537  
 ORIGINAL REFERENCE NO.: 129:56391a, 56394a  
 TITLE: Method of preparing a thiophene- or furan ring-containing conjugated compound, and precursor compounds used therein  
 INVENTOR(S): Chmiller, Knut Holger; Brown, Adam Richard; De Leeuw, Dagobert Michiel; Hovinga, Edske Enno; Pomp, Anita; Ten Hoeve, Wolter; Wijnberg, Hans  
 PATENT ASSIGNEE(S): Koninklijke Philips Electronics N.V., Neth.  
 SOURCE: Eur. Pat. Appl., 19 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

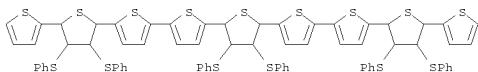
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 867437	A1	19980930	EP 1998-200580	19980224
EP 867437	B1	20021113		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 6124475	A	20000926	US 1998-39599	19980316
US 5919951	A	19990706	US 1998-158630	19980922
US 6184540	B1	20010206	US 1999-249968	19990212
PRIORITY APPLN. INFO.:				
EP 1997-200760 A 19970314				
US 1998-39599 A3 19980316				
US 1998-158630 A3 19980922				

IT 214044-38-9P 214044-41-4P 214044-44-7P  
 214044-45-8P  
 RL: SPN (Synthetic preparation); PREP (Preparation)

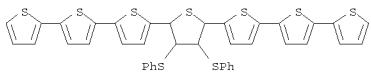
L4 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)  
 (prepn. of precursors of thiophene- or furan ring-contg. conjugated compds.)  
 RN 214044-38-9 CAPLUS  
 CN 2,2';5',2'';5',2'';5'''5''',2''''-Sexithiophene,  
 2',2''',3',3''',4',4''',5',5'''-octahydro-3',3''',4',4'''-tetrakis(phenylthio)- (9CI) (CA INDEX NAME)



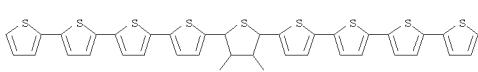
RN 214044-41-4 CAPLUS  
 CN 2,2';5',2'';5',2'';5'''5''',2''''-Novithiophene,  
 2',2''',2'''';3',3''',3'',4',4''',5',5'''-dodecahydro-  
 3',3''',3'',4',4''',4'',4'''-hexakis(phenylthio)- (9CI) (CA INDEX NAME)



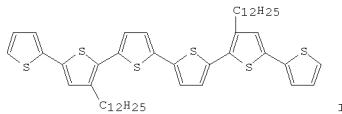
RN 214044-44-7 CAPLUS  
 CN 2,2';5',2'';5',2'';5'''5''',2''''-Septithiophene, 2',2''',3',3''',4',4''',5',5'''-tetrahydro-3',3''',4',4'''-bis(phenylthio)- (9CI) (CA INDEX NAME)



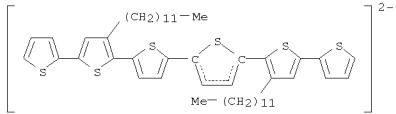
RN 214044-45-8 CAPLUS  
 CN 2,2';5',2'';5',2'';5'''5''',2''''-Novithiophene, 2',2''',3',3''',4',4''',5',5'''-tetrahydro-  
 3',3''',4',4''',5',5'''-bis(phenylthio)- (9CI) (CA INDEX NAME)



L4 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN  
 ED Entered STN: 08 Jan 1994  
 GI



AB The title compound (I) has been prepared. During cyclic voltammetry of I,  $I^{+}$ , (I) $^{2+}$ ,  $I^{2-}$ , and  $I^{3-}$  were characterized by difference absorption and ESR spectroscopy.  
 ACCESSION NUMBER: 1994:7999 CAPLUS  
 DOCUMENT NUMBER: 120:7999  
 ORIGINAL REFERENCE NO.: 120:1765a,1768a  
 TITLE: Thiophenes. 9. Didodecylsexithiophene, a model compound for the generation and characterization of charge carriers in conjugated chains  
 AUTHOR(S): Baeuerle, Peter; Segelbacher, Uwe; Gaudl, Kai Uwe; Huttonlocher, Dieter; Mehring, Michael  
 CORPORATE SOURCE: Inst. Org. Chem. Isotopenforsch., Univ. Stuttgart, Stuttgart, W-7000/80, Germany  
 SOURCE: Angewandte Chemie (1993), 105(1), 125-7 (See also Angew. Chem., Int. Ed. Engl., 1993, 32(1), 119-21)  
 CODEN: ANCEAD; ISSN: 0044-8249  
 DOCUMENT TYPE: Journal  
 LANGUAGE: German  
 IT 148779-38-8  
 RL: PREP (Preparation)  
 (formation, ESR spectra, and UV spectra of)  
 RN 148779-38-8 CAPLUS  
 CN 2,2';5',2'';5'',2''';5''',2'''';5'''''-Sexithiophene,  
 3'''''4'-didodecyl-2'',3''-dihydro-, ion(2-) (9CI) (CA INDEX NAME)



L4 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN  
 ED Entered STN: 26 Dec 1992  
 AB The structure of a low-bandgap conjugated polymer, polyisothianaphthene (I), is studied with a joint exptl. and theor. approach.  $^{13}C$  NMR measurements are performed on the polymer and on a series of model isothianaphthene mols. These mol. compds. are designed and prepared to represent either aromatic or quinoid segments of the polymer chain. Combining cross-polarization magic angle spinning, cross-depolarization, and proton-dephasing expts. as a function of the polarization and the depolarization time allows determination of the chemical shifts of the 4 C sites of I. These values are compared to the data obtained on the model mols. and discussed in terms of the ground-state structure (aromatic or quinoid) of the polymer. Quantum-chemical calcns. using the Austin Model 1 semiempirical Hamiltonian are performed on I oligomers of various lengths. The relative stabilities of the aromatic and quinoid valence bond isomers are estimated in relation to the corresponding values of polythiophene. Finally, the electronic properties (bandgap, ionization potential) of aromatic and quinoid I are evaluated with the valence effective Hamiltonian method and compared to the exptl. data.  
 ACCESSION NUMBER: 1992:652102 CAPLUS  
 DOCUMENT NUMBER: 117:252102  
 ORIGINAL REFERENCE NO.: 117:43663a,43666a  
 TITLE: Low-bandgap conjugated polymers. A joint experimental and theoretical study of the structure of polyisothianaphthene  
 AUTHOR(S): Hoogmartens, I.; Adrijsensens, P.; Vanderzande, D.; Gelan, J.; Quattrochi, C.; Lazzaroni, R.; Bredas, J. L.  
 CORPORATE SOURCE: Inst. Materiaalonderzoek, Limburg Univ., Diepenbeek, B-3590, Belg.  
 SOURCE: Macromolecules (1992), 25(26), 7347-56  
 CODEN: MAMOBX; ISSN: 0024-9297  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 144692-64-8  
 RL: PRP (Properties)  
 (energy per repeat unit of, calculated)  
 RN 144692-64-8 CAPLUS  
 CN 1,1';3',1'';3'',1''';3''',1'''';3'''''-Sexibenzo[c]thiophene,  
 1,1',1'',1''',1''''',1'''''';3,3',3'',3''''',3'''''-dodecahydro- (9CI) (CA INDEX NAME)

L4 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

